

WE CLAIM:

1. A method of displaying all links connecting a network device with network devices outside a map currently presented on a graphical user interface (GUI) of a communication network, comprising:

a) collecting data for all objects to be displayed on said map in response to a request transmitted over said GUI;

b) bundling all connections between said network device and a group of network devices outside said map into an outside link;

c) grouping all outside links for said network device into a multiple link connector (MLC) object and associating said MLC object with an interactive connector icon; and

d) displaying said map showing said interactive connector icon attached to said network device.

2. The method of claim 1, further comprising selecting said interactive connector icon for displaying a pop-up window showing a multiple link connector (MLC) list where each outside link object is associated with a respective group object.

3. The method of claim 2, wherein said multiple link connector list displays in each row an interactive outside link widget associated with a respective interactive group identification widget.

4. The method of claim 3, further comprising selecting said interactive outside link widget on said multiple link connector list to display a connections list $L(n)$ identifying all connections bundled within said outside link object.

5. The method of claim 3, further comprising selecting said interactive group identification widget on said multiple link connector list to display a sub-map of said network showing all network devices in said group.

6. A modified graphical user interface (GUI) of the type adapted to transmit commands and display information with a view to enable management of a communication network, comprising:

means for collecting map data for a network device to be displayed on a map of interest;

means for bundling all connections between said network device and a group of outside network devices external to said map into an outside link, and maintaining a connections list $L(n)$ for each said outside link; and

means for grouping all outside links for said network device into a multiple link connector (MLC) and associating said MLC with an interactive connector icon,

wherein said interactive connector icon is displayed on said map attached to said network device.

7. The modified GUI of claim 6, further comprising a list organizer for generating a multiple link connector (MLC) list showing the association between each outside link and a respective group of outside network devices.

8. The modified GUI of claim 7, wherein each outside link is displayed using an interactive outside link widget.

9. The modified GUI of claim 7, wherein each group of outside network devices is displayed using an interactive group identification widget.

10. The modified GUI of claim 8, wherein said list organizer displays said MLC list in response to selection of said interactive outside link widget.

11. The modified GUI of claim 9, wherein said list organizer displays a sub-map of said group in response to selection of said interactive group identification widget.

12. The modified GUI of claim 6, wherein said interactive multiple link connector icon is not generated for a single connection.

13. A method of using a modified graphical user interface (GUI) adapted to reduce the cluttering of icons on a map of interest, comprising:

a) whenever a network device is connected to more than one outside network device of a group of outside network devices external to said map, displaying an outside link connecting said network device with said group using an interactive multiple link connector icon; and

b) selecting said multiple link connector icon on said map to obtain a multiple link connector list, displaying an interactive outside link widget associated with an interactive group identification widget for each group of outside network devices connected to said network device.

14. The method of claim 13, further comprising selecting said interactive outside link widget for said outside link to obtain a list $L(n)$ with all connections between said network device and said group.

15. The method of claim 13, further comprising selecting said interactive group identification widget on said multiple link connector list to display a sub-map of all network devices in said group.

16. For a GUI of a communication network, a comprehensive network map illustrating all outside links to network devices external to said map, comprising:

a network device icon, illustrating a network device in the context of said map; and

an interactive multiple link connector icon associated to said network device, representing all outside links between said network device and all groups of outside network devices connected to the network device.

17. The network map of claim 16, wherein said multiple link connector icon comprises a button for enabling display of a multiple link connector list.

18. The network map of claim 16, wherein each row of said multiple link connector list comprises an outside link widget associated with a group identification widget.

19. The network map of claim 18, further comprising a list with all connection between said network device and said group, displayed on said map upon selection of said outside link widget.

20. The network map of claim 18, further comprising a sub-map of said group displayed on said map upon selection of said group identification widget.